Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	]	
	]	WT Docket No. 07-121
WIRELESS STRATEGIES, INC	]	DA 07-2684
	]	
Request for Declaratory Ruling on Compliance of Fixed Microwave Antennas Having Distributed Radiating Elements	]	

COMMENTS OF DAVID B. POPKIN

On June 19, 2007, the Commission released a Public Notice requesting comments on the Request for a Declaratory Ruling ["Request"] filed by Wireless Strategies, Inc. ["WSI"] regarding coordination of microwave links under Part 101 of the Commission's Rules.

I have served as a microwave frequency coordinator in the New Jersey area for fifteen plus years.

The thrust of the WSI Request appears to seek a ruling that a licensee may use antennas having distributed elements to operate links in addition to the main link. These separate links would be "concurrently coordinated" because they are coordinated simultaneously with, and ancillary to, the main beam.[1]

[1] Request at 7

It would appear that WSI is not fully aware of the procedures that are involved in the Prior Frequency Coordination procedure that is mandated by Section 101.103[d] of the Commission's Rules.

The following discussion is provided to elaborate on the process of Frequency Coordination. Assume that an applicant wishes to provide service between points A and B. The frequency coordination process will evaluate the following items for the potential of interference:

1. Does the transmitter at point A radiating towards point B cause interference to the existing environment?
2. Does the transmitter at point B radiating towards point A cause interference to the existing environment?
3. Does the receiver at point A receiving from point B receive interference from the existing environment?
4. Does the receiver at point B receiving from point A receive interference from the existing environment?

If either transmitter causes interference to the existing environment, then it must be resolved before that path can be applied for.

If either receiver receives interference from the existing environment, then the applicant is free to accept the interference provided that this is indicated to the coordinator of the transmitting path so that future complaints will not be valid.

The second step in the operation is for existing frequency coordinators to place this point A to point B path in their database [once the path has been coordinated and either renewed or licensed] so that future growth and use of the spectrum may be accomplished.

What is being proposed by WSI is to place a remote transceiver at some unknown point C to provide communications now between points A and C. The same four items must still be evaluated, namely:

1. Does the transmitter at point A radiating towards point C cause interference to the existing environment?
2. Does the transmitter at point C radiating towards point A cause interference to the existing environment?
3. Does the receiver at point A receiving from point C receive interference from the existing environment?
4. Does the receiver at point C receiving from point A receive interference from the existing environment?

With respect to item 1 above, WSI claims that this has been evaluated in the original point A to point B path due to the side lobe energy that normally exists with all microwave antennas.

With respect to item 2 above, the potential for interference from this transmitter has not been evaluated by the existing microwave community. The placing of a radiation source of energy at point C and directed towards point A must be evaluated in a similar manner as all radiating sources of energy are. Since the existence of point C's location as well as the operating parameters at point C have not been made known to the existing microwave coordinators, it is not possible for them to evaluate the potential for interference into their existing systems.

Even if WSI were to evaluate this potential for interference, it does not meet the standard bilateral interference evaluation procedure where both the proponent of a path and all of the existing coordinators are able to conduct their own independent evaluation.

The evaluation of radiation of energy from point A towards point C is completely independent of the radiation of energy in the reverse direction.

With respect to items 3 and 4 above, these too must be evaluated and resolved in a similar manner as was done with the Point A to B coordination.

Furthermore, any new use in the future will not be capable of being fully evaluated since the A to C path will not appear in any database and could potentially cause interference from or into a newly desired path.

WSI makes the statement that their request for a declaratory ruling will maximize efficient use of the spectrum.[2] They also state that they will be able to provide additional service without tying up additional spectrum.[3]

It is noted that WSI's application maximizes the absolute power level of the side lobe energy towards point C by filing for the maximum allowed transmitter power on the A to B path and for utilizing a theoretical Standard A antenna pattern at point A rather than an actual antenna with an actual radiation pattern that is normally better than the theoretical Standard A mask in most azimuths. While legal, this procedure certainly does not provide for the most efficient use of the spectrum.

As an example of the effective spectrum use that currently exists, an evaluation[4] was made of the number of licensed stations within 50 kilometers of the WSI BA Tower station WQHD218 which is the midpoint of the WSI two-hop Philadelphia system. On one frequency, there were 14 other stations licensed and on the other frequency there were 15 other stations licensed.

Based on the above, the WSI Request for a Declaratory Ruling should be denied.

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2 Request at 8.
3 Request at 9.
4 Using the Commission's ULS website.

Respectfully submitted,

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